



Item#2053

# Solar e power

## Owner's Guide

Patent Pending



### INTRODUCTION

Thank you for purchasing the *Solar e Power*.

Using the latest in photovoltaic technology, the *Solar e Power* is designed to directly charge mobile phones and AA and AAA size rechargeable batteries. This is ideal for recharging Ni-MH, Ni-cad, and Li-Ion batteries used in cameras, PDA's, and other handheld devices using AA batteries. The *Solar e Power* is also capable of using alkaline batteries to directly charge mobile phones.

The Wagan *Solar e Power* has such features as a built-in "blocking diode", which prevents the reverse flow of electricity from the batteries to the solar panels when the solar panels are not supplying electricity. By utilizing Siemen(TM) photovoltaic cells as solar panels are not supplying electricity. By utilizing Siemen(TM) photovoltaic cells as solar panels, the charger has the latest in sunlight conversion technology.

Please read all instruction before operating charger!

### OPERATING INSTRUCTIONS

#### A. Charge your phone from Sun Light

1. Slide the switch to "Solar Charging Phone".
2. Open the unit to expose the solar panels.
3. Plug the appropriate cable to your phone and other end into the DC jack on the side of the unit.
4. Place the charger under bright sunlight and adjust the angle stand so that the solar panel for directly faces sunlight.
5. The red LED light should light up. Charging will start whenever the solar panel is exposed to a strong sunlight. The more sunlight is received, the more energy will be stored into the battery. When your phone's battery is full, the LED light will blink.
6. In order to receive maximum sunlight, it is best to place the charger on a window sill, balcony, backyard, etc., where there is no obstacle between the solar panel and the sun moving across the sky throughout the day.
7. Make sure your phone is kept out of direct sunlight when charging, store your phone under the charger or other shaded place.

#### B. Charge rechargeable batteries from sunlight

1. Open the battery compartment.
2. Correctly place 4 rechargeable batteries (AA or AAA) in the battery compartment.  
Note : The charger is designed to charge 4 batteries of the same size and same brand. Do not attempt to mix different size and different brand rechargeable batteries or charge less than 4 batteries at the same time. Different size and brands of batteries are of different resistance which can greatly affect the charging system.
3. Slide the switch to "Solar Charging Batteries".
4. Place the charger under bright sunlight and adjust the angle stand so that the solar panel directly faces sunlight.
5. The red LED light should light up. Charging will start whenever the solar panel is exposed to strong sunlight. The more sunlight is received, the more energy will stored into the rechargeable batteries. When the rechargeable batteries are almost fully charged, the LED light will begin to blink.
6. In order to receive maximum sunlight, it is best to place the charger on a window sill,

balcony, backyard, etc., where there is no obstacle between the solar panel and the sun moving across the sky throughout the day.

### **C. Charge your phone from rechargeable batteries.**

1. Open the battery compartment.
2. Correctly place 4 rechargeable batteries (AA or AAA) into the battery compartment. Make sure the rechargeable batteries were fully charged.
3. Slide the switch to "Batteries Charging Phone".
4. Plug the appropriate cable to your phone and other end into the DC jack on the side of the unit.
5. The red LED light should light up. Charging will start. When the phone's battery is full, the LED light will blink.

### **D. Charging your phone from normal Alkaline batteries**

1. Open the battery compartment.
2. Correctly place 4 rechargeable batteries (AA or AAA) into the battery compartment. Do not mix batteries of different types, brands and sizes.
3. Slide the switch to "Batteries Charging Phone".
4. Plug the appropriate cable to your phone and other end into the DC jack on the side of the unit.
5. The red LED light should light up. Charging will start. When the phone's battery is full, the LED light will blink.

### **E. How to calculate charging time**

The charging time of solar panels can be estimated by the following equation :

$(\text{battery capacity in mAh} / 200) \times 1.2 = \text{charge time in hours.}$

This equation assumes the solar panels have "full sun", defined as maximum sun exposure at noon on a clear day.

#### **Example.**

A Nokia battery is 650 mAh.

$(650 \text{ mAh} / 200) \times 1.2 = 3.9 \text{ hours.}$

It would take a Nokia battery 3.9 hours to charge by solar power.

#### **Warning :**

The time it takes to recharge a battery depends on the following :-

1. The capacity of the battery.
2. The existing charge already within the battery.
3. Intensity of the sunlight.

#### **Notes :**

- \* Dirty solar panels will not allow for optimal operation. Clean the solar panels by wiping with a soft cloth and glass cleaner.
- \* Do not drop or abuse the charger. The solar panels can shatter.
- \* Recharging time will vary depending on exposure to sunlight and battery capacity.
- \* This product is only suitable for outdoor use. Indoor lighting is not capable of charging mobile phone batteries and rechargeable batteries.
- \* The product is not suitable for mobile phone batteries over 6.0 volts.

### **E. Troubleshooting**

*If the LED does not light up when using solar power to charge mobile or battery.*

- \* Ensure the solar panels are positioned for maximum sun exposure.
- \* Ensure the solar panels are not dirty. Clean the solar panels by wiping with a soft cloth and glass cleaner.

*If the LED does not light up when using batteries to charge mobile phone.*

- \* Ensure batteries have full charged.
- \* Ensure batteries are correctly placed in battery case.
- \* Ensure should be of the same type and age. Do not mix batteries of different types. (e.g. using Alkaline and Li-Ion batteries together). Do not use old and new batteries together.

*Rechargeable batteries do not charge when LED is on.*

- \* Ensure that rechargeable batteries are being used.
- \* Ensure that batteries can still carry charge.
- \* Ensure batteries are correctly placed in battery case.

*Mobile phone does not work with charger when LED is on.*

- \* Ensure the proper cable is used and that the connections are secure.
- \* Ensure the mobile phone contains a chargeable battery.

*If the red LED light does not come on when under sunlight.*

- \* The solar panels are not getting enough sunlight. Please make sure the solar panel is exposed directly to the sun.

*If the red LED light is blinking when under sunlight.*

- \* The sunlight is too weak or your phone's battery already completely charged.

*The red LED light does not come on but the phone indicates charging.*

- \* Cannot charge as the current is too low. That will take a very long time to charge your phone.

Please make sure the solar panel is exposed a strong sunlight.

### **Supported Mobile Phones**

Nokia	: 5120, 5125, 5160, 5165, 5110, 5180, 5185, 5190, 6120, 6160, 6162, 6161, 6190, 7160, 8260, 8290, 8860, 8890, 3390, 6110, 6150, 3210, 8210, 8250, 8850, 3310.
Motorola	: STAR-TEC, 328, 338, V3688, V3688+, 998, 3160, 3180, 2188, V8088, L2000, LF2000, 97389, L7089, CD920, CD928, 988
Ericsson	: T28
Samsung	: SGH-500, SGH-800, A100.

### **Specifications**

Power at full sun	: 1.38 watts.
Current voltage at full sun	: 6.0 volts DC
Current by battery	: 350mA (Average)
Output voltage by battery	: 4.8 volts DC to 5.7 volts DC.
Weight without batteries	: 5.6 oz (160 gsm)
Product Dimension (folded)	4.5" x 2.625" x 1.25" (11.5 cm x 6.75 cm x 3.5 cm)
Made In	China